



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,794	11/19/2003	John James Daniels	1084-0002	6787

7590 07/20/2006

Michaud-Duffy Group LLP  
306 Industrial Park Road, Suite 206  
Middletown, CT 06457

EXAMINER

LIN, JAMES

ART UNIT PAPER NUMBER

1762

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8

<b>Office Action Summary</b>	<b>Application No.</b> 10/716,794	<b>Applicant(s)</b> DANIELS, JOHN JAMES	
	<b>Examiner</b> Jimmy Lin	<b>Art Unit</b> 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 8, 9 and 18 is/are pending in the application.
- 4a) Of the above claim(s) 4-7, 10-17 and 19-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8, 9 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 10/375161.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/9/04, 4/21/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of claims 1-3, 8, 9, 18, and 20 in the reply filed on 5/24/06 is acknowledged. The traversal is on the ground(s) that the Examiner failed to concisely state the reasons relied upon for holding that the inventions as claimed are either independent or distinct. This is not found persuasive because the Office Action of paper No. 20060420 states that each species election is made between mutually exclusive species. Therefore, the species are independent, and therefore the elections of species are appropriate in the absence of an admission by Applicant or evidence that shows the species are to be obvious variants.

The requirement is still deemed proper and is therefore made FINAL.

2. The Applicant indicates that claim 20 is readable on the subject matter of Figs. 1, 4, 22-27 and 66B. However, claim 20 recites the limitation of selectively patterning the mixture causing the emissive/more-conductive material to concentrate in emissive regions and the non-emissive/less-conductive material to concentrate in non-emissive regions. The substrate matter is directed to a method of making light active devices of Figs. 163-165 and a device configuration of Fig. 165 (see pgs. 129-130). Therefore, claim 20 is directed to a nonelected species and will be withdrawn from consideration.

3. Claims 4-7, 10-17, 19, and 20-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 5/24/06.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 1762

5. Claims 1-3 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Krohn et al. (2003/0022957).

Krohn discloses a method of making an EL device, wherein the EL layer is formed by curing a UV curable EL composition (abstract). The EL composition comprises a light active material and a monomer [0190]-[0193]. Upon UV curing, the EL composition will comprise of concentration regions (i.e., first regions) containing the light active material and concentration regions (i.e., second regions) containing the polymer because Krohn does not teach that the materials chemically react before or after curing.

Claim 2: The EL layer 8 is disposed between a first electrode 6 and a second electrode 10 (Fig. 1).

Claim 3: The EL composition comprises an EL phosphor [0190].

Claim 9: The EL layer 8 and a bottom electrode 6 are deposited over a substrate 4 (Fig. 1).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krohn et al. (2003/0022957) in view of Andersson et al. (6,117,567).

Krohn is discussed above, but does not explicitly teach that the light emitting material comprises of at least one conjugated polymer. However, Andersson discloses a method of making an EL device incorporating at least one EL conjugated polymer (abstract), wherein the EL conjugated polymer can be PPV (claim 2). The present specification exemplifies PPV as a suitable conjugated EL polymer (pg. 99, lines 10-15). The selection of something based on its known suitability for its intended use has been held to support a prima facie case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use PPV in the light emitting material of Krohn because Andersson teaches that PPV is a suitable EL material.

9. Claims 1-3, 8-9, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rorison et al. (GB 2344691 A) in view of Krohn et al. (2003/0022957).

Rorison discloses a method of making a polarized EL device, wherein the light active materials can be cross-linked (pg. 16, 1<sup>st</sup> full paragraph). The polarization of the light active materials can be done by selectively fixing the fluid matrix with a UV light (pg. 12, 2<sup>nd</sup> and 3<sup>rd</sup> full paragraphs).

Rorison does not explicitly teach cross-linking a monomer from a mixture containing the monomer and the light active material. However, it is well known in the EL art to use a mixture of a monomer and a light active material in the process of making a cross-linked EL layer (see e.g., Krohn, [0190]-[0193]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to cross-link the monomer from a mixture containing a monomer and a light active material because such a mixture is suitable for the process of making a cross-linked EL layer.

Upon polymerization, the EL composition will comprise of concentration regions (i.e., first regions) containing the light active material and concentration regions (i.e., second regions) containing the polymer.

Claim 2: Rorison teaches that the light active material 22 is disposed between a cathode layer 23 and an anode layer 21 (pg. 8, paragraph 4).

Claim 3: Rorison teaches that the EL device can have an organic emitter layer (pg. 1, paragraph 2).

Claim 8: Rorison teaches that PPV is a suitable light active material (pg. 10, paragraph 2). The present specification exemplifies PPV as a suitable conjugated EL polymer (pg. 99, lines 10-15).

Claim 9: Rorison teaches that the light active layer 54 and a bottom electrode 52 are deposited over a substrate 51 (Fig. 9f).

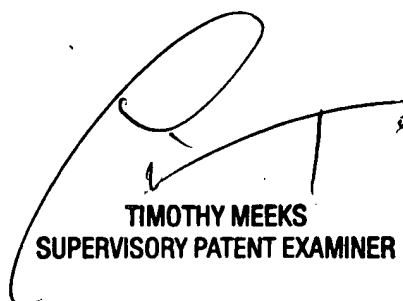
Claim 18: Rorison teaches that an electric field or a magnetic field is applied to the light active material in order to align the molecules (pg. 12, 2<sup>nd</sup> full paragraph).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Lin whose telephone number is 571-272-8902. The examiner can normally be reached on Monday thru Thursday 8 - 5:30 and Friday 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

7/5/06



**TIMOTHY MEEKS**  
**SUPERVISORY PATENT EXAMINER**